

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Application : **10/540,185**  
Applicant(s) : **HARS, Laszlo**  
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Examiner : **AVERY, Jeremiah L.**  
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Title: **HIERARCHICAL SCHEME FOR SECURE MULTIMEDIA DISTRIBUTION**

Mail Stop: **APPEAL BRIEF - PATENTS**  
Commissioner for Patents  
Alexandria, VA 22313-1450

**APPEAL UNDER 37 CFR 41.37**

Sir:

This is an appeal from the decision of the Examiner dated 2 July 2008, finally rejecting claims 1-20 of the subject application.

This paper includes (each beginning on a separate sheet):

- 1. Appeal Brief;**
- 2. Claims Appendix;**
- 3. Evidence Appendix; and**
- 4. Related Proceedings Appendix.**

## **APPEAL BRIEF**

### **I. REAL PARTY IN INTEREST**

The above-identified application is assigned, in its entirety, to **Koninklijke Philips Electronics N. V.**

### **II. RELATED APPEALS AND INTERFERENCES**

Appellant is not aware of any co-pending appeal or interference that will directly affect, or be directly affected by, or have any bearing on, the Board's decision in the pending appeal.

### **III. STATUS OF CLAIMS**

Claims 1-19 are pending in the application.

Claim 20 is canceled.

Claims 1-19 stand rejected by the Examiner under 35 U.S.C. 102(e).

These rejected claims are the subject of this appeal.

### **IV. STATUS OF AMENDMENTS**

An amendment was filed on 29 October 2008, subsequent to the final rejection in the Office Action dated 2 July 2008, canceling claim 20. A reply to the final rejection was filed on 2 September 2008.

## **V. SUMMARY OF CLAIMED SUBJECT MATTER**

This invention relates to the distribution of various quality versions of content material (applicant's specification, page 1, lines 1-15). Conventionally, different quality versions are provided by providing different levels of encoding with increasing detail. In an embodiment of this invention, a single high-quality version of the content material is provided, and different distortion algorithms are applied at the user's playback device to render lower-quality versions (page 1, lines 28-32; page 5, lines 16-20; S60 of FIG. 5). Distortion algorithms can be provided that reduce color-precision, spatial and/or audio resolution, and other attributes that affect the perceived quality of the rendered content material (Table 1; page 3, lines 1-16); for example, the reduction of color precision can be implemented by a simple algorithm that merely truncates the pixel color values. In an example use of this invention, the distortion algorithms (22 of FIG. 2; 32 of FIG. 3) and encrypted copies of the high-quality version (21; 31) are freely distributed, and the different quality versions are provided by providing different content keys (33) (page 4, lines 7-15; FIGs. 2 and 3). Each content key includes a decryption key for the high-quality version, and an indication of the corresponding distortion algorithm, if any, that is to be applied to each attribute of the content material by a conforming rendering device (page 3, lines 17-21).

As claimed in independent claim 1, the invention comprises a method of distributing various quality versions of an electronic content, comprising (FIG. 1):  
defining each quality version of the electronic content (page 2, lines 24-31; S12)

defining at least one distortion algorithm executable to generate a lower quality version of the electronic content by a distortion of a high quality version of the electronic content (page 3, lines 11-14; S14);

assigning at least one content key to at least one quality version of the electronic content (page 3, lines 17-18; S16); and

distributing the higher quality version, the at least one distortion algorithm, and the at least one content key (page 4, lines 4-5; S18).

As claimed in dependent claim 4, the invention includes the method of claim 1, wherein the distributing includes storing the at least one distortion algorithm on an electronic content player (page 4, lines 16-19; S42).

As claimed in independent claim 7, the invention comprises an electronic content medium (20 of FIG. 2), comprising:

a high quality version of an electronic content (page 4, lines 7-8); and  
at least one distortion algorithm (page 4, lines 7-9) executable to generate a lower quality version of the electronic content by a distortion of the high quality version of the electronic content (page 5, lines 16-20).

As claimed in independent claim 9, the invention comprises an electronic content player (70 of FIG. 6), comprising:

a decryption unit (72) operable to decrypt and decode a high quality version of an electronic content (page 5, lines 13-15); and  
a distortion unit (73) operable to generate a lower quality version of the electronic content by a distortion of the decrypted and decoded high quality version of the electronic content (page 5, lines 16-19).

#### **VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL**

Claims 1-19 stand rejected under 35 U.S.C. 102(e) over Yu (USP 7,167,560).

## **VII. ARGUMENT**

### **Claims 1-20 stand rejected under 35 U.S.C. 102(e) over Yu**

#### **Claims 1-6**

Yu fails to teach a method that includes defining a distortion algorithm executable to generate a lower quality version of the electronic content by a distortion of a high quality version of electronic content and distributing the higher quality version and the distortion algorithm, as specifically claimed in claim 1.

Yu teaches a convention distribution of different enhancement layers of an encoding of video content, as illustrated in Yu's FIG. 4. Yu provides the following explanation of the encoding:

"In such scalable encryption corresponding to scalable coding, a base layer and/or one to several of all the enhancement layers are selected and encrypted separately using the same encryption or different algorithms based on the application specification. Different keys are provided such that those having the base layer decryption key may view the media in lower quality while those having both the base and one or more enhancement layer keys may view the media in higher quality." (Yu, column 6, line 64 - column 7, line 5.)

Yu specifically teaches the distribution of a base layer and one or more enhancement layers. At the playback device, depending upon the keys available to the particular user, the playback device builds an image with progressively finer detail obtained from each enhancement layer. Yu does not teach distributing a higher quality version, per se, and does not teach distributing a distortion algorithm.

The Office action cites column 3, lines 6-21 and column 7, lines 21-57 to support the assertion that Yu teaches the distribution of a higher level version and one or more distortion algorithms. At the cited text, Yu does not mention a distortion algorithm; a distortion algorithm is not mentioned at all in Yu.

With reference to the cited text, the Office action acknowledges that Yu teaches that higher quality versions of the content is created by decrypting the one or more enhancement layers, and fails to show where Yu teaches a distortion algorithm.

Because Yu fails to teach distributing a higher quality version of electronic content and one or more distortion algorithms that are executable to generate a lower quality version of the electronic content by a distortion of the high quality version of the electronic content, and because the Office action fails to identify where Yu provides this teaching, the applicant respectfully maintains that the rejection of claims 1-6 under 35 U.S.C. 102(e) over Yu is unfounded, and should be reversed by the Board.

#### **Claim 4**

Yu fails to teach storing a distortion algorithm on an electronic content player.

As noted above, Yu teaches building higher quality versions of content by combining a base layer and one or more enhancement layers. Yu does not teach distorting a high quality version to create lower quality versions, and does not teach storing a distortion algorithm on an electronic content player.

In this rejection, the Office action references the encryption process of Yu. The applicant notes that the encryption process of Yu is performed at the source of the base and enhancement layers. Even assuming in argument that the encryption processes of Yu are distortion algorithms, the applicant respectfully notes that Yu does not teach distributing the encryption processes, and specifically does not teach that such distributing includes storing the encryption processes on an electronic content player.

Because Yu fails to teach distributing and storing a distortion algorithm on an electronic content player, as specifically claimed in claim 4, the applicant respectfully maintains that the rejection of claim 4 under 35 U.S.C. 102(e) over Yu is unfounded, and should be reversed by the Board.

### **Claims 7-8**

Yu fails to teach an electronic content medium that includes a high quality version of an electronic content and a distortion algorithm executable to generate a lower quality version of the electronic content by a distortion of the high quality version of the electronic content, as specifically claimed in claim 7, upon which claim 8 depends.

Yu's medium includes a base layer and one or more enhancement layers of electronic content. Yu's medium does not contain functional code that is executable to generate lower quality versions of a higher quality version of the electronic content.

Even assuming in argument that the encryption processes of Yu are distortion algorithms, the applicant respectfully notes that Yu does not teach providing these encryption processes on a medium with a high quality version of the electronic content.

Because Yu fails to teach the elements of claim 7, the applicant respectfully maintains that the rejection of claims 7-8 under 35 U.S.C. 102(e) over Yu is unfounded, and should be reversed by the Board.

### **Claims 9-19**

Yu fails to teach an electronic content player that includes a decryption unit operable to decrypt and decode a high quality version of an electronic content and a distortion unit operable to generate a lower quality version of the electronic content by a distortion of the decrypted and decoded high quality version of the electronic content, as specifically claimed in claim 9, upon which claims 10-19 depend.

As noted above, Yu teaches providing a base layer and one or more enhancement layers to a content player. Yu does not expressly describe the playback apparatus, and the Office action fails to identify where Yu teaches an electronic content player as claimed.

Because Yu teaches providing a base layer and one or more enhancement layers, there is no basis for the Office action's assertion that Yu teaches a content player that distorts a high quality version of content material to generate lower quality versions. Accordingly, the applicant respectfully maintains that the rejection of claims 9-19 under 35 U.S.C. 102(e) over Yu is unfounded, and should be reversed by the Board.

### **CONCLUSIONS**

Because Yu teaches providing a base layer and one or more enhancement layers, and teaches creating progressively higher quality versions of content by adding the enhancement layer data to the base layer data, and does not teach providing a high quality version and one or more distortion algorithms for creating lower quality versions by distorting the high quality version, the Applicant respectfully requests that the Examiner's rejection of claims 1-19 under 35 U.S.C. 102(e) over Yu be reversed by the Board, and the claims be allowed to pass to issue.

Respectfully submitted

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## CLAIMS APPENDIX

1. A method of distributing various quality versions of an electronic content, comprising:
  - defining each quality version of the electronic content;
  - defining at least one distortion algorithm executable to generate a lower quality version of the electronic content by a distortion of a high quality version of the electronic content;
  - assigning at least one content key to at least one quality version of the electronic content; and
  - distributing the higher quality version, the at least one distortion algorithm, and the at least one content key.
2. The method of claim 1, the distributing includes storing the high quality version of the electronic content on an electronic content medium.
3. The method of claim 2, wherein the distributing includes storing the at least one distortion algorithm on the electronic content medium.
4. The method of claim 1, wherein the distributing includes storing the at least one distortion algorithm on an electronic content player.
5. The method of claim 2, wherein the distributing includes storing the at least one content key on the electronic content medium.
6. The method of claim 1, wherein the distributing includes storing the at least one content key on an electronic content player.

7. An electronic content medium, comprising:
  - a high quality version of an electronic content; and
  - at least one distortion algorithm executable to generate a lower quality version of the electronic content by a distortion of the high quality version of the electronic content.
8. The electronic content medium of claim 7, including at least one content key assigned to one of the quality versions of the electronic content.
9. An electronic content player, comprising:
  - a decryption unit operable to decrypt and decode a high quality version of an electronic content; and
  - a distortion unit operable to generate a lower quality version of the electronic content by a distortion of the decrypted and decoded high quality version of the electronic content.
10. The electronic content player of claim 9, including a controller operable to direct the decryption unit to decrypt and decode the high quality version of the electronic content in accordance with a content key associated with the electronic content.
11. The electronic content player of claim 9, including a controller operable to direct the decryption unit to decrypt and decode the high quality version of the electronic content in accordance with a content key assigned to one of a lower quality version of the electronic content.
12. The electronic content player of claim 9, including a controller operable to direct the decryption unit to decrypt and decode the high quality version of an electronic content in accordance with a content key associated with the electronic content subsequent to a reception of a secret key assigned to the electronic content player.

13. The electronic content player of claim 9, including a controller operable to direct the decryption unit to decrypt and decode the high quality version of an electronic content in accordance with a content key assigned to one of a lower quality version of the electronic content subsequent to a reception of a secret key assigned to the electronic content player.

14. The electronic content player of claim 9, including a controller that is configured to control the distortion unit to generate the lower quality version of the electronic content based on a content key assigned to the lower quality version.

15. The electronic content player of claim 9, including a media reader that is configured to read a media that contains the high quality version of the electronic content.

16. The electronic content player of claim 15, including a controller that is configured to control the distortion unit to generate the lower quality version of the electronic content based on a content key assigned to the lower quality version.

17. The electronic content player of claim 16, wherein the media includes the content key.

18. The electronic content player of claim 16, wherein the controller is configured to obtain the content key independent of the media.

19. The electronic content player of claim 10, wherein the controller is configured to control the distortion unit to generate the lower quality version of the electronic content based on the content key.

## **EVIDENCE APPENDIX**

No evidence has been submitted that is relied upon by the appellant in this appeal.

**RELATED PROCEEDINGS APPENDIX**

Appellant is not aware of any co-pending appeal or interference which will directly affect or be directly affected by or have any bearing on the Board's decision in the pending appeal.